

A DEVICE THAT PROVIDES THE FUNCTIONALITY OF DUAL-PORTED
MEMORY USING SINGLE-PORTED MEMORY FOR MULTIPLE CLOCK
DOMAINS

5 ABSTRACT OF THE INVENTION

10 A device that provides the functionality of dual-ported memory using single-
ported memory for multiple clock domains is described. In one embodiment, a
memory device comprises two or more port synchronization logic devices, a port
multiplexing logic, and a single-ported memory core. The port multiplexing logic
devices synchronize information communicated between ports associated with the
port synchronization logic devices and the single-ported memory core by
synchronizing the information between port clocks and a core clock.